

### ■ Case Study - Alba Innovation Centre (AIC)

The AIC is part of Innovation Centres Scotland Ltd (ICS), a leading provider of incubation services and support for early stage, growing businesses in Scotland. The centre provides one of Scotland's leading edge business incubation facilities in Livingston near Edinburgh.

### ■ Problem

Given that energy prices are doubling every seven years<sup>1</sup> and 40% of energy is used in buildings, managers with large properties or multiple sites often face situations where there is an urgent need to reduce their energy costs and bear down on other operational expenditures such as management and maintenance. For instance, in a commercial building **lighting can consume 40% of the energy bill and typically 70% of this is wasted**<sup>2</sup>! Reduction of the CO<sub>2</sub> levels is also a key requirement.

The problems at the AIC are not uncommon. The building is multi-tenanted modern office environment where staff can arrive and go at all times of day or night. The building had no special controls and lighting in public areas was left on for extended periods. Staff did not switch off stair or foyer lighting since it was not possible to know who else was in the building. Also the fluorescent ballasts were overheating and creating a fire risk since they are generally rated on the basis of a 12 hour ON/OFF duty cycle.

### ■ Solution

To overcome these issues, the AIC have trialled the EnergyFusion™ system from Tantallon Systems Ltd. This is a **powerful and innovative energy management system** specifically designed to manage lighting and other utilities in such a way as to reduce and optimise the energy usage.

Moreover, the system provides information by way of real time data and reports which detail the energy savings made (in terms of KWh, Kg of CO<sub>2</sub>, and £) so this makes it easy to quantify the benefits.

The EnergyFusion™ system is network connected and can be managed remotely via the Internet if required. It measures its own energy performance and produces detailed statistics. In the AIC these figures were checked and verified using independent baseline measurements to confirm 'before- and-after' figures.

### ■ Results

EnergyFusion™ is **reducing the lighting load at the AIC by ensuring that lighting is on only when needed** and that natural levels of light are used where this is possible to reduce the use of electric lighting. This is managed automatically, so there is no longer the need for staff or management to worry about switching lights on or off.

The EnergyFusion™ system was **installed in a non-disruptive manner** with little impact on normal business at the AIC. It has proved to be easy to use, trouble free, and provides very flexible control options and these can be easily applied allowing complex lighting scenarios to be set up rapidly

In lighting the public areas of where it is being trialled, **EnergyFusion™ is continuing to deliver greater than 60% energy savings** in the AIC with still more savings to be had!

In addition the new energy efficient **ballast's no longer run hot - avoiding the health & safety issues** of the old system. Operating currently in the public areas, these benefits could be extended to the entire building. EnergyFusion™ is connected to the building network and can be managed locally or remotely over the Internet so management and maintenance is greatly simplified.

### ■ Fact

In lighting the Alba Innovation Centre, (AIC), the EnergyFusion™ Energy management & lighting system from Tantallon **is reaping energy savings benefits of greater than 60%, after just four months!** - in the public areas where it is being trialled

### ■ Testimonial

"Retrofitting of the *EnergyFusion™* trial in the Alba Innovation Centre involved minimum disruption and the system is working well. On the basis of the demonstrated savings we are keen to extend the installation throughout the common areas of the Centre."

**Stephen Morris**  
**AIC Innovation Manager**

1. Building Research Establishment, BRE 2011
2. International Energy Authority, IEA, 2006